

jp2001015500/pn

L1 ANSWER 1 OF 1 JAPIC (C) 2003 JPO on STN
ACCESSION NUMBER: 2001-015500 JAPIC
TITLE: LOW-DENSITY FILM, MANUFACTURE THEREOF INSULATING FILM,
AND SEMICONDUCTOR DEVICE
INVENTOR: SHIODA ATSUSHI; SHIBA TADAHIRO; SUMIYA KOJI; YAMADA
KINJI
PATENT ASSIGNEE(S): JSR CORP
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 2001015500	A	20010119	Heisei	H01L021-312

APPLICATION INFORMATION

STN FORMAT:	JP 1999-188165	19990701
ORIGINAL:	JP11188165	Heisei
PRIORITY APPLN. INFO.:	JP 1999-188165	19990701
SOURCE:	PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2001	
INT. PATENT CLASSIF.:		
MAIN:	H01L021-312	
SECONDARY:	C09D183-04	

ABSTRACT:

PROBLEM TO BE SOLVED: To improve the balance between the dielectric constant and mechanical strength of an interlayer insulating film used in a semiconductor element, etc., by irradiating a film containing a compound which is compatibilized or dispersed in a siloxane compound component and having a boiling point or decomposition temperature which falls within a specific range with an electron beam.

SOLUTION: A film containing a compound which is compatibilized or dispersed in a compound, such as the polyoxyethylene alkylether, polyoxyethylene alkylphenylether, polyoxyethylene sterolether, polyoxyethylene lanolin derivative, etc., having a polyallylene oxide structure, a component such as the (meta) acrylate-based polymer, polyester, polycarbonate, polyanhydride, etc., and has a boiling point or decomposition temperature of 250-450°C is formed on a substrate. Then the film is irradiated with an electron beam. Thus, the balance between

the dielectric constant and mechanical strength of an interlayer insulating film used in a semiconductor element, etc., can be improved.
